Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence number	L8560/2011/2
Licence holder	City of Kalgoorlie Boulder
ACN	NA
Registered business address	57 Hannan Street KALGOORLIE WA 6430
DWER file number	2012/006900-1
Duration	23/06/2016 to 22/06/2036
Date of amendment	27/11/2020
Premises details	South Boulder Wastewater Treatment Plant Portion of Lot 221 DP217615 and Reserve 42000 Celebration Road, South Boulder BOULDER WA 6432

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	**Assessed production / design capacity**
Category 54: Sewage facility: premises – (a) On which sewage is treated (excluding septic tanks); or (b) From which treated sewerage is discharged onto land or into waters.	20,000 cubic meters per day
Category 61: Liquid waste facility: premises on which liquid waste produced on other premises (other than sewerage waste) is stored, re-processed, treated, or discharged onto land.	15,000 tonnes per Annual Period

This licence is granted to the licence holder, subject to the attached conditions, on 27 November 2020, by:

Steve Checker
Digitally signed by Steve Checker
Date: 2020.11.27 15:25:47 +08'00'

Stephen Checker
MANAGER WASTE INDUSTRIES
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Licence history

Date	Reference number	Summary of changes
23/06/2011	L8560/2011/1	Licence issued
19/06/2015	L8560/2011/1	Licence re-issued for 12 months
20/06/2016	L8560/2011/2	Licence re-issued
24/08/2017	L8560/2011/2	Licence amended to extend completion date for the improvement condition IR2 to 22 July 2018 and amend prescribed premises boundary
27/11/2020	L8560/2011/2	Licence amended to permit diversion of trade waste flows of approximately 5m^3/day to the IDEA plants for the duration of stage A works to allow for the refurbishment of ponding lagoon 1 An amalgamation process was also undertaken to incorporate amendment notice 1 issued on 24 August 2017.

Interpretation

In this licence:

(a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate;

(b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;

(c) where tables are used in a condition, each row in a table constitutes a separate condition;

(d) any reference to an Australian or other standard, guideline, or code of practice in this licence:

  (i) if dated, refers to that particular version; and

  (ii) if not dated, refers to the latest version and therefore may be subject to change over time;

(e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and

(f) unless specified otherwise, all definitions are in accordance with the EP Act.

NOTE: This licence requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this licence.

Licence conditions

The licence holder must ensure that the following conditions are complied with:

Infrastructure and equipment

1. The licence holder must ensure that the site infrastructure and equipment listed in Table 1 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 1.

Table 1: Infrastructure and equipment requirements

Site infrastructure and equipment	Operational requirement	Infrastructure location
Inlet works (Screw screening)	Grit and Screenings – removal of organic material	Infrastructure located within the boundary shown in Schedule 1, Figure 1.
1 X Wastewater aerobic pond labelled as Aerobic Anoxic Tank (AAT)	Wastewater treatment	
2 X Wastewater aeration pond labelled as Intermittent aeration tanks (IAT)	Wastewater treatment - Intermittent aeration	
1 X Wastewater pond labelled as Treated Effluent Balance Tank (TEBT)	Wastewater treatment – storage of treated effluent water. Treated sewerage is either pumped offsite to the holding lagoons prior to irrigation or is directed to wastewater ponding lagoons 1, 2 and 3 for further treatment.	
4 x Sludge Lagoons 1, 2, 3 and 4	Wastewater treatment- Sludge and leachate storage	
TWM lagoon	Leachate storage from de-sludging lagoons 1, 2, 3 or 4.	
Gas chlorination unit	Wastewater treatment Disinfection of treated effluent water	
2 x Wastewater treatment lagoons known as Ponding Lagoons 2 and 3	Storage of treated effluent water	

Premises operation

2. The Licence holder shall record and investigate the exceedance of any descriptive or numerical limit in this section.

3. The Licence holder shall only allow waste to be accepted on to the Premises if:
   (a) it is of a type listed in Table 2; and
   (b) the quantity accepted is below any limit listed in Table 2; and
   (c) it meets any specification listed in Table 2

Table 2: Waste acceptance

Waste	Waste Code	Quantity Limit	Averaging period	Specification[1]
Sewerage	N/A	20,000 cubic meters per day	Annual Period	Accepted through reticulated sewer inflow(s).
Septage waste Sewage waste	K210 K130	8,000 tonnes per Annual Period (combined)	Annual Period	Received at the premises via road transport and discharged into the reticulated sewer inlet pit as depicted in Schedule 1.

4. The Licence Holder shall ensure that the wastes accepted onto the Premises are subjected to the processes set out in Table 3 and in accordance with any process requirements described in that table.

Table 3: Waste processing

Waste type	Process[1]	Process requirements[1]
Sewerage (normal operation) & K210 and K130 waste influent	Removal of inorganic material	All waste is to pass through the Step Screen.
	Anoxic treatment and aeration	All waste is to pass through the Anoxic Aeration Tank.
	Intermittent aeration	All waste is to pass through the Intermittent Aeration Tank.
	Balance tank	All waste is to pass through the Balance Tank.
	Chlorination	Treated effluent to be pumped off-site for industrial re-use may be treated by the onsite chlorinator at Location 3. Treated effluent to be pumped offsite to the 'Old Boulder Holding Lagoons' does not require chlorination.
	On-premises storage	Treated effluent from the Balance Tank may be discharged to Wastewater Holding Pond 1, with overflow directed to Wastewater Holding Lagoon 2 and Wastewater Holding Lagoon 3 for storage.

	Pumping to offsite re-use	Treated effluent may be pumped offsite from either the Balance Tank or Wastewater Holding Pond 3 only.
Sewerage (Storm-water surges in excess of hydraulic capacity of IDEA plant or sewerage received during a power failure)	Primary biological treatment and sludge settlement	Stormwater surge in excess of hydraulic capacity of IDEA plant to be diverted to Wastewater Ponding Lagoon 1.
	Biological treatment	All waste from Wastewater Ponding Lagoon 1 is to be directed to Wastewater Ponding Lagoon 2 and Wastewater Ponding Lagoon 3 (in order).
	Pumping to offsite re-use	Treated effluent may be pumped offsite for re-use from Holding Pond 3 only.
Sewage sludge	Drying and treatment	Sludge from de-sludging activities is to be stored or treated in de-sludging lagoons 1, 2, 3 or 4 only. Leachate from de-sludging lagoons 1, 2, 3 or 4 is to be pumped to the TWM Storage Lagoon only.

Notes 1: Refer to Schedule 1 for the location of infrastructure.

5. The Licence Holder shall ensure that waste material is only stored and/or treated within vessels or compounds provided with the infrastructure detailed in Table 4.

Table 4: Containment infrastructure

Vessel or compound[1]	Material	Requirements
Wastewater Pond labelled as Aerobic Anoxic Tank	Wastewater	Clay lined to a permeability of less than 10^{-9} m/s
Wastewater Pond labelled as Balance Tank	Wastewater	Clay lined to a permeability of less than 10^{-9} m/s
Sludge Lagoons 1, 2, 3 and 4.	Sludge leachate and sludge[2]	Lined with in-situ soils/strata.
Wastewater Ponding Lagoons 2 and 3	Wastewater	Lined with in-situ soils/strata.
TWM Storage Lagoon	Leachate from sludge drying processes	Lined with in-situ soils/strata.

Notes: Refer to Schedule 1 for the location of infrastructure.

6. The Licence Holder shall manage all Wastewater Ponds such that:
   (a) overtopping of the ponds does not occur;
   (b) a freeboard equal to, or greater than, 300mm is maintained;
   (c) the integrity of the containment infrastructure is maintained;
   (d) vegetation and floating debris (emergent or otherwise) is prevented from encroaching onto pond surfaces or inner pond embankments; and
   (e) stormwater run-off from roof and site drainage is prevented from entering the Wastewater Ponds or Wastewater Treatment vessels.

7. The Licence Holder shall immediately recover, or remove and dispose of spills of waste (as defined in table 2) outside an engineered containment system.

8. The Licence Holder shall ensure that discharge to Hannan's Lake is managed so that uncontrolled release of wastewater does not occur.

9. The Licence Holder shall:
   (a) implement security measures at the site to prevent as far as is practical unauthorised access to the site;
   (b) undertake regular inspections of all security measures and repair damage as soon as practicable; and
   (c) ensure the entrance gates are closed and locked when the site is closed or unmanned.

Emission and discharges

10. The Licence Holder shall record and investigate the exceedance of any descriptive or numerical limit specified in this Licence.

Surface Water discharges

11. The Licensee shall ensure that where waste is emitted to surface water from the emission points specified in Table 5 and identified on the map in Schedule 2 it is done so in accordance with the conditions of this Licence.

Table 5: Emission point to surface water

Emission point reference[1]	Description	Source including abatement
Location 4	Discharge point to Hannan's Lake	Treated wastewater

Note 1: Location as depicted in Schedule 1.

12. The Licensee shall not cause or allow point source emissions to surface water for parameters in a range outside of the limit value specified in Table 6.

Table 6: Point source emission limits to surface water

Emission point Reference[1]	Parameter	Limit (including units)	Averaging period
Location 4	Faecal Coliforms	<1000 CFU/100ml	Median of any 5 consecutive samples
	pH	>5 <9	Spot sample

	Biological Oxygen Demand (BOD_5)	<15 mg/L	Annual Period
	Total Suspended Solids (TSS)	<40 mg/L	Annual Period
	Volume	<250 ML/year	Annual Period

Note 1: Location as depicted in Schedule 1.

Monitoring

13. The licence holder shall ensure that:
(a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
(b) all wastewater sampling is conducted in accordance with AS/NZS 5667.10;
(c) all surface water sampling is conducted in accordance with AS/NZS 5667.9 as relevant;
(d) all groundwater sampling is conducted in accordance with AS/NZS 5667.11;
(e) all microbiological samples are collected and preserved in accordance with AS/NZS 2031; and
(f) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured unless indicated otherwise in the relevant table.

14. The licence holder shall ensure that:
(a) monthly monitoring is undertaken at least 15 days apart; and

(b) quarterly monitoring is undertaken at least 45 days apart.

15. The licence holder shall ensure that all monitoring equipment used on the Premises to comply with the conditions of this Licence is calibrated in accordance with the manufacturer's specifications.

Monitoring of point source emissions to surface water

16. The Licence holder shall undertake the monitoring in Table 7 according to the specifications in that table.

Table 7: Monitoring of point source emissions to surface water

Emission point reference[1]	Parameter	Units	Frequency
Location 4	Volumetric flow rate	m^3/day	Continuous
	pH (field)	-	Within seven days of commencement of discharge and monthly until flow ceases
	Faecal Coliforms	CFU/100ml	
	Biological Oxygen Demand (BOD_5)	mg/L	
	Total Suspended Solids (TSS)		
	Chemical Oxygen Demand (COD)		
	Total Dissolved Solids		

	Total Nitrogen		
	Ammonium Nitrogen		
	Nitrate-Nitrogen		
	Nitrite-Nitrogen		
	Total Phosphorus		
	Arsenic		
	Cadmium		
	Chromium		
	Copper		
	Lead		
	Nickel		
	Zinc		
	Total Cyanide		

Note 1: Location as depicted in Schedule 1.

Monitoring of inputs and outputs

17. The Licence holder shall undertake the monitoring of the inputs specified in Table 8 according to the specifications in that table.

Table 8: Monitoring of inputs

Waste	Location[1]	Units	Averaging period	Frequency
Reticulated sewerage	Location 1 Flow meter inflow	m^3/day m^3/year	Daily Annual Period	Continuous
K210 Waste		m^3/year	Annual Period	Each load
K130 Waste		m^3/year		

Note 1: Location as depicted in Schedule 1.

18. The Licence holder shall undertake the monitoring of the outputs specified in Table 9 according to the specifications in that table.

Table 9: Monitoring of outputs

Waste	Location[1]	Units	Averaging period	Frequency
Industry re-use offtake point	Location 6 Flow meter industry re-use	m^3/day m^3/year	Daily Annual Period	Continuous
Treated effluent	Location 7 Flow meter To Old Boulder			
Treated effluent	Location 8 Flow meter To Old Boulder			

Note 1: Location as depicted in Schedule 1.

Process monitoring

19. The Licence holder shall undertake monitoring of influent at the locations specified in Table 10 according to the specifications of that table.

Table 10: Influent monitoring

Monitoring point reference	Process description	Parameter	Units	Frequency
Location 9. Grab sample within Aerobic Anoxic Tank	Reticulated sewerage influent and Combined K210 and K130 waste influent	pH (field)	-	Quarterly
		Faecal Coliforms	mg/L	Quarterly
		Biological Oxygen Demand (BOD_5)		
		Total Suspended Solids (TSS)		
		Chemical Oxygen Demand (COD)		
		Total Dissolved Solids		
		Total Nitrogen		
		Ammonium Nitrogen		
		Nitrate-Nitrogen		
		Nitrite-Nitrogen		
		Total Phosphorus		
		Arsenic		
		Cadmium		
		Chromium		
		Copper		
		Lead		
		Nickel		
		Zinc		
		Total Cyanide		

Note 1: Location as depicted in Schedule 1.

20. The Licence holder undertake monitoring of effluent at the locations specified in Table 11 according to the specifications of that table.

Table 11: Effluent monitoring

Monitoring point reference	Process description	Parameter	Units	Frequency
Monitoring port on outlet pipe[1] from: Location 7 and Location 8	Treated wastewater	pH (field)	-	Quarterly
		Faecal Coliforms	CFU /100ml	Quarterly
		Biological Oxygen Demand (BOD_5)	mg/L	Quarterly
		Total Suspended Solids (TSS)		
		Chemical Oxygen Demand (COD)		
		Total Dissolved Solids		
		Total Nitrogen		
		Ammonium Nitrogen		
		Nitrate-Nitrogen		
		Nitrite-Nitrogen		
		Total Phosphorus		

		Arsenic		
		Cadmium		
		Chromium		
		Copper		
		Lead		
		Nickel		
		Zinc		
		Total Cyanide		

Ambient environmental quality monitoring

21. The Licensee shall undertake the monitoring in Table 12 according to the specifications in that table.

Table 12: Monitoring of ambient groundwater quality

Monitoring point reference and location[1]	Parameter	Units	Averaging period	Frequency
SB1 – SB6	Standing water level	m(AHD) m (BGL)	Spot sample	Quarterly
	Electrical conductivity (Field)		Spot sample	
	pH (Field)	-	Spot sample	
	Total Dissolved Solids	mg/L	Spot sample	
	Total Nitrogen			
	Total Phosphorus			
	Total Cyanide			
	Oil and Grease			

Note 1: Location as depicted in Schedule 1.

Records and reporting

22. The licence holder must record the following information in relation to complaints received by the licence holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:

(a) the name and contact details of the complainant, (if provided);

(b) the time and date of the complaint;

(c) the complete details of the complaint and any other concerns or other issues raised; and

(d) the complete details and dates of any action taken by the licence holder to investigate or respond to any complaint.

23. The licence holder must:

(a) undertake an audit of their compliance with the conditions of this licence during the preceding annual period; and

(b) prepare and submit to the CEO by no later than 31 days after the end of that annual period an Annual Audit Compliance Report in the approved form.

24. The Licensee shall submit to the CEO an Annual Environmental Report within 60 calendar days after the end of the Annual Period. The report shall contain the information listed in Table 13 in the format or form specified in that table.

Table 13: Annual Environmental Report Requirements

Condition or table (if relevant)	Parameter	Format or form[1]
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken	None specified
Table 7 Discharge to Hannan's Lake	All parameters listed. Where both BOD and COD have been measured, the BOD to COD ratio is to be included in the AER.	Average for Annual Period Graph of historic values.
Table 8 Monitoring of inputs		
Table 9 Monitoring of outputs		
Table 10 Influent monitoring		
Table 11 Effluent monitoring		Quarterly values Average for Annual Period Graph of historic values.
Table 12 Ambient quality monitoring		Monthly values Graph of historic values.
Table 7	Contaminant loading to land of parameters (total annual loading kg/ha/yr for nitrogen and phosphorus)	None specified
23	Complaints summary: Date, summary of complaint and response actions taken.	Tabular format

25. The licence holder must maintain accurate and auditable books including the following records, information, reports, and data required by this licence:

(a) the calculation of fees payable in respect of this licence;

(b) the works conducted in accordance with condition 1 of this licence;

(c) any maintenance of infrastructure that is performed in the course of complying with condition 1 of this licence; and

(d) complaints received under condition 2 of this licence.

26. The books specified under condition 22 must:

(a) be legible;

(b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;

(c) be retained by the licence holder for the duration of the licence; and

(d) be available to be produced to an inspector or the CEO as required.

Notification

27. The Licensee shall ensure that the parameters listed in Table 14 are notified to the CEO in accordance with the notification requirements of the table.

Table 14: Notification requirements

Condition or table (if relevant)	Parameter	Notification requirement[1]	Format or form[2]
10	Breach of any limit specified in the Licence	Part A: As soon as practicable as but no later than 5pm of the next usual working day. Part B: As soon as practicable	N1

Note 1: Notification requirements in the Licence shall not negate the requirement to comply with s72 of the Act
Note 2: Forms are in Schedule 2

Definitions

In this licence, the terms in Table 15 have the meanings defined.

Table 15: Definitions

Term	Definition
ACN	Australian Company Number
Annual Audit Compliance Report	means a report submitted in a format approved by the CEO (relevant guidelines and templates may be available on the Department's website).
annual period	a 12 month period commencing from 1 July until 30 June of the immediately following year.
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer of the Department. "submit to / notify the CEO" (or similar), means either: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 or: info@dwer.wa.gov.au
Department	means the department established under section 35 of the *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
discharge	has the same meaning given to that term under the EP Act.
emission	has the same meaning given to that term under the EP Act.
EP Act	*Environmental Protection Act 198*6 (WA)
licence	refers to this document, which evidences the grant of a licence by the CEO under section 57 of the EP Act, subject to the specified conditions contained within.
licence holder	refers to the occupier of the premises, being the person specified on the front of the licence as the person to whom this licence has been granted.
premises	refers to the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map (Figure 1) in Schedule 1 to this licence.

Term	Definition
prescribed premises	has the same meaning given to that term under the EP Act.
waste	has the same meaning given to that term under the EP Act.

END OF CONDITIONS

Schedule 1: Maps

Premises map

The Premises is shown in the map below. The grid co-ordinates depicted on the plan represent the corners of the Premises boundary in the Geocentric Datum of Australia 1994 (GDA 94) coordinate system.

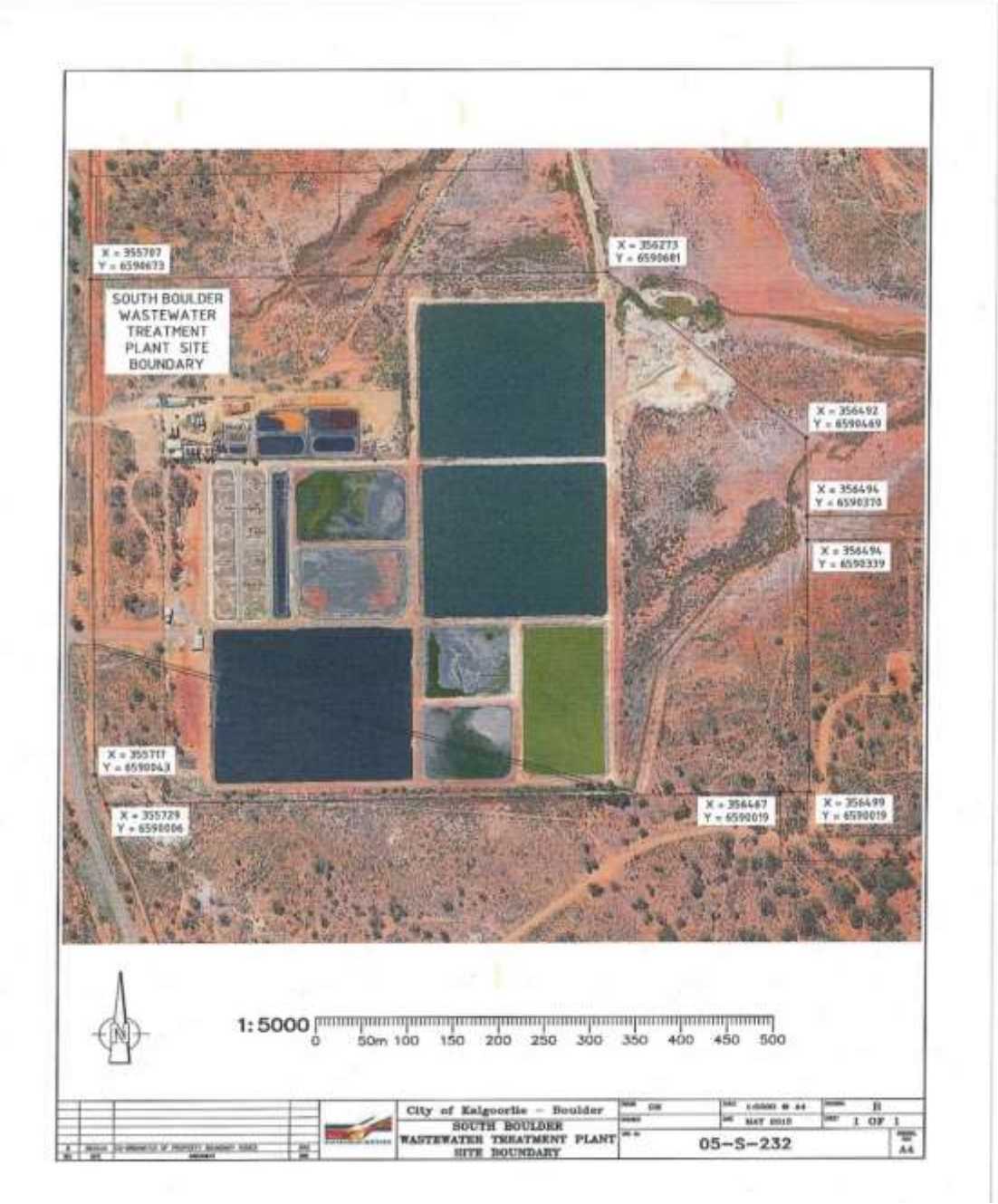

Figure 1: Map of the boundary of the prescribed premises and key infrastructure

Map of waste treatment and containment infrastructure and emission points and monitoring locations

The locations of infrastructure defined in Tables 1, 2, 3 and 4 are shown in the following plan.

The locations of the emission points and monitoring locations defined in Tables 5 and 6 are shown in the following plan.

The locations of the monitoring points defined in Tables 7, 8, 9, 10 and 11 shown in the following plan.

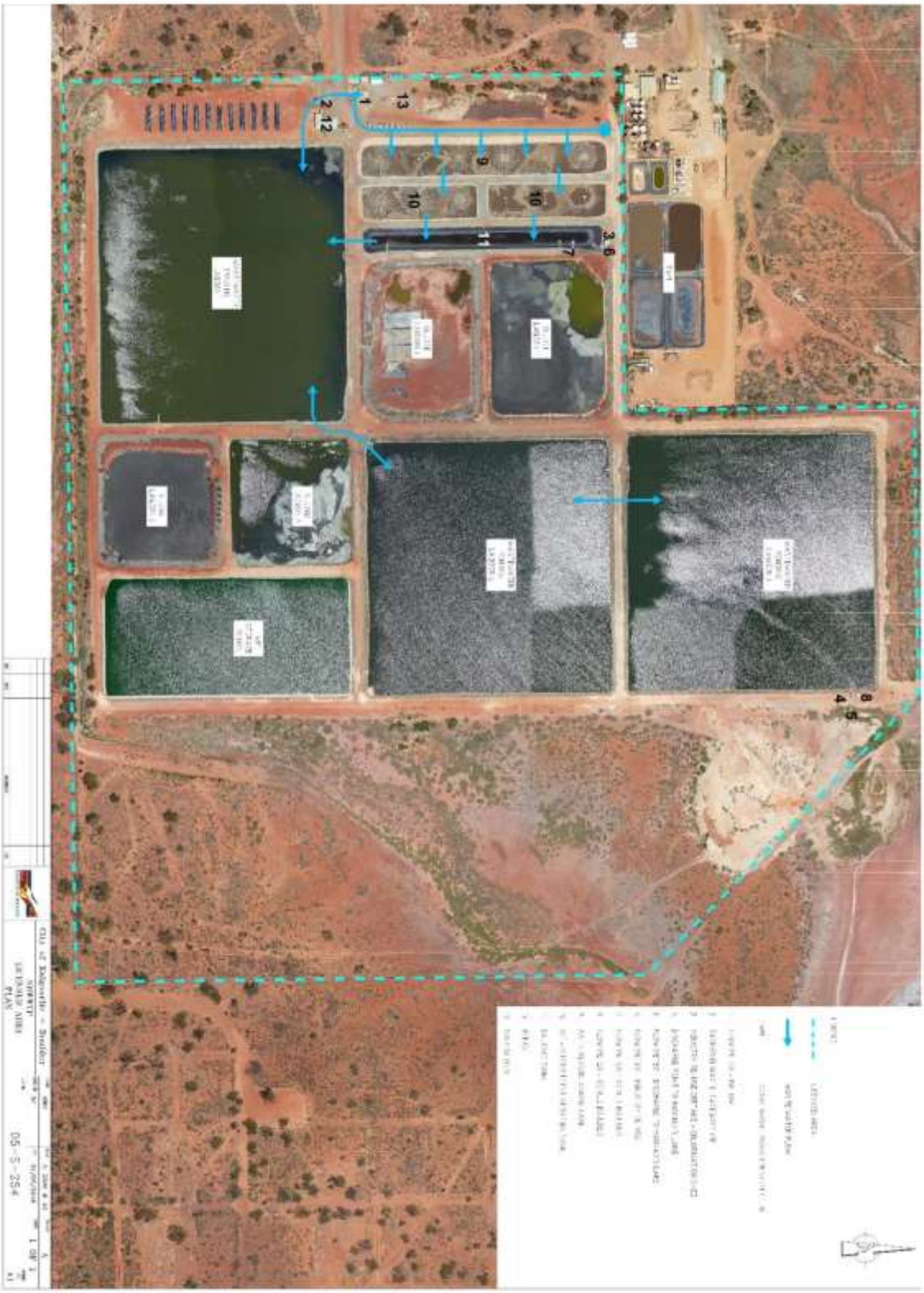

Figure 2

The locations of the groundwater monitoring points defined in Table 12 are shown below.

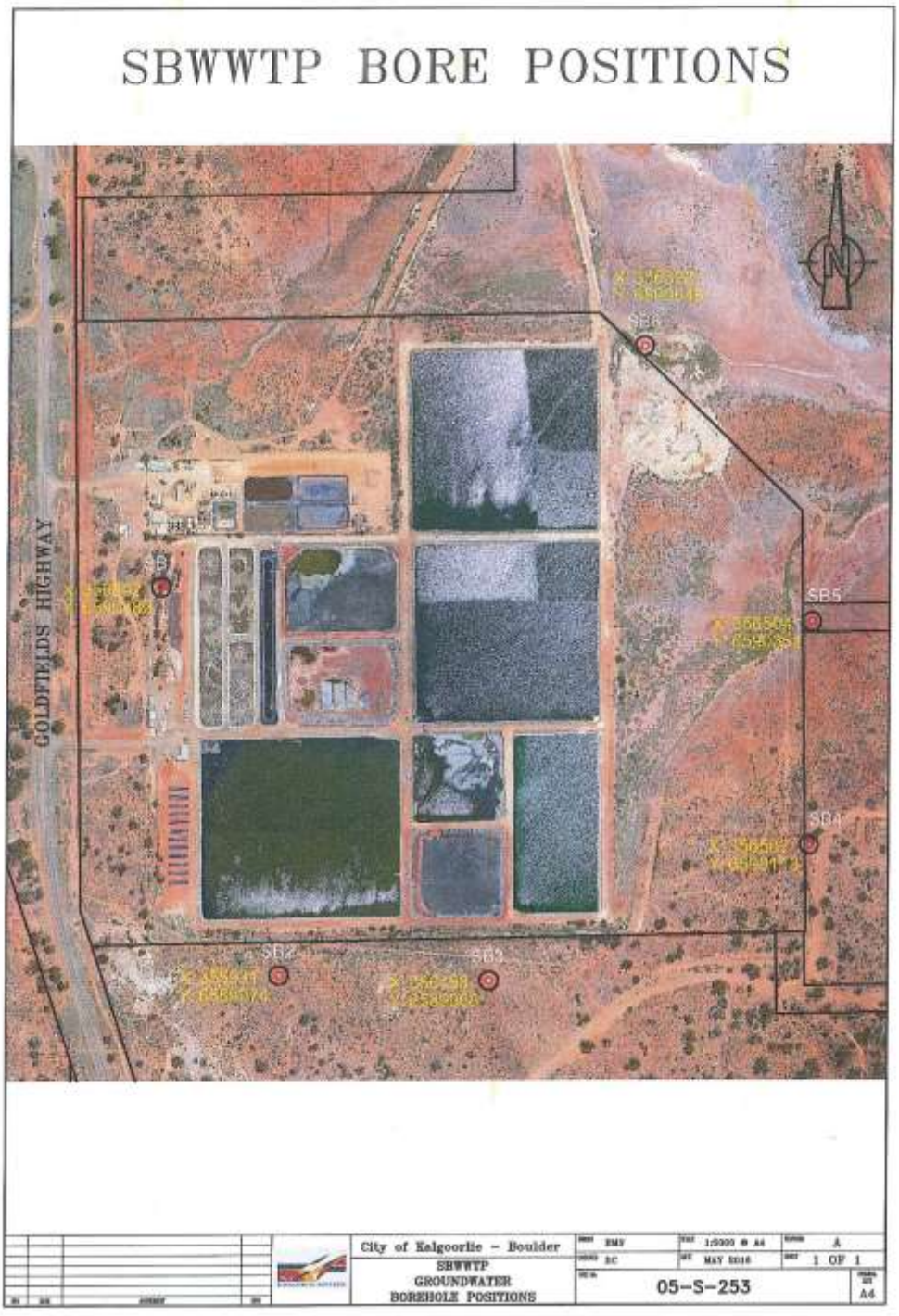

Figure 3

Schedule 2: Premises boundary

The premises boundary is defined by the coordinates in Table 16.

Table 16: Premises boundary coordinates (GDA94)

Easting - X	Northing - Y
355707	*6590673*
356273	*6590681*
356492	*6590469*
356494	*6590370*
356494	*6590339*
356499	*6590019*
355729	*6590006*
355717	*6590043*

Licence: L8560/2011/2 Licensee: City of Kalgoorlie-Boulder
Form: N1 Date of breach:

Notification of detection of the breach of a limit.

These pages outline the information that the operator must provide.
Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

Part A

Licence Number	
Name of operator	City of Kalgoorlie-Boulder
Location of Premises	
Time and date of the detection	

Notification requirements for the breach of a limit	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission.	
The dates of any previous N1 notifications for the Premises in the preceding 24 months.	

Name	
Post	
Signature on behalf of City of Kalgoorlie-Boulder	
Date	